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United States Patent Application**20020065355****Kind Code****A1****Terase, Kunihiro ; et al.****May 30, 2002**

Floor polishing composition**Abstract**

A floor polishing composition containing a film-formable organic high molecular material as the main component, which further contains at least scaly particles.

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Claims

What is claimed is:

1. A floor polishing composition containing a film-formable organic high molecular material as the main component, which further contains at least scaly particles.
2. The floor polishing composition according to claim 1, wherein the scaly particles are silica corresponding to layered polysilicic acid.
3. The floor polishing composition according to claim 2, wherein the layered polysilicic acid is scaly silica particles having particle structures of layered structures present independently to each other, which comprises foliar silica secondary particles wherein a plurality of flaky primary particles of scaly silica are overlaid one on another and aligned face-to-face in parallel with one another.
4. The floor polishing composition according to claim 2, wherein the foliar silica secondary particles composing the scaly silica are silica having the main peaks corresponding to silica-X and/or silica-Y according to X-ray diffraction analysis.
5. The floor polishing composition according to claim 3, wherein the foliar silica secondary particles composing the scaly silica are silica having the main peaks corresponding to silica-X and/or silica-Y according to X-ray diffraction analysis.
6. The floor polishing composition according to claim 1, wherein the organic high molecular material in the floor polishing composition is an organic high molecular material in aqueous emulsion state.
7. The floor polishing composition according to claim 2, wherein the organic high molecular material in the floor polishing composition is an organic high molecular material in aqueous emulsion state.
8. The floor polishing composition according to claim 3, wherein the organic high molecular material in the floor polishing composition is an organic high molecular material in aqueous emulsion state.
9. The floor polishing composition according to claim 4, wherein the organic high molecular material in the floor polishing composition is an organic high molecular material in aqueous emulsion state.
10. The floor polishing composition according to claim 5, wherein the organic high molecular material in the floor polishing composition is an organic high molecular material in aqueous emulsion state.
11. A floor polishing film comprising a film-formable organic high molecular material provided on a surface of a substrate, which contains scaly particles.
12. The floor polishing film according to claim 11, wherein the scaly particles are silica corresponding to layered polysilicic acid.

13. The floor polishing film according to claim 12, wherein the layered polysilicic acid is scaly silica particles having particle structures of layered structures present independently to each other, which comprises foliar silica secondary particles wherein a plurality of flaky primary particles of scaly silica are overlaid one on another and aligned face-to-face in parallel with one another.

14. The floor polishing film according to claim 12, wherein the foliar silica secondary particles composing scaly silica in the film are silica having the main peaks corresponding to silica-X and/or silica-Y according to X-ray diffraction analysis.

15. The floor polishing film according to claim 13, wherein the foliar silica secondary particles composing scaly silica in the film are silica having the main peaks corresponding to silica-X and/or silica-Y according to X-ray diffraction analysis.

16. A floor polishing film according to claim 11, wherein an overcoating layer comprising an organic high molecular material is provided on the floor polishing film.

17. A floor polishing film according to claim 12, wherein an overcoating layer comprising an organic high molecular material is provided on the floor polishing film.

18. A floor polishing film according to claim 13, wherein an overcoating layer comprising an organic high molecular material is provided on the floor polishing film.

19. A floor polishing film according to claim 14, wherein an overcoating layer comprising an organic high molecular material is provided on the floor polishing film.

20. A floor polishing film according to claim 15, wherein an overcoating layer comprising an organic high molecular material is provided on the floor polishing film.

Description

[0001] The present invention relates to a floor polishing composition for a surface of a substrate for purposes of providing protection, antifouling property, gloss and the like on a floor surface, and also relates to a floor polishing film.

[0002] Heretofore, a floor polishing composition is widely used for forming a floor polishing film on a floor surface to provide protection, antifouling property and gloss on the floor surface, i.e. a surface of a substrate such as plastic, wood, natural stone, cement set material, metal, glass, ceramics, leather (natural or artificial ones), and the like. Recently, as the floor polishing composition, a synthetic organic high molecular material is often used in addition to natural products such as conventional wax commonly used as a polishing agent for forming a floor polishing film.

[0003] Physical properties generally required for a floor polishing composition (or a floor polishing film formed thereby (which may be referred simply to "polishing film" or "film" hereinafter)) are illustrated below.

[0004] {circle over (1)} The film must have satisfactory mechanical strength, durability and chemical resistance to protect a floor surface.